Express Mail Certificate #AB 197-148-48[illegible]
Mailed December [illegible] 1990

07 625637

PATENT
38-21(10525)A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE THE APPLICATION OF:	
ROBERT T. FRALEY AND STEPHEN G. ROGERS	GROUP ART UNIT:
SERIAL NUMBER:	EXAMINER:
FILED: DECEMBER 7, 1990	DECEMBER 7, 1990
TITLE: CHIMERIC GENES FOR TRANSFORMING PLANT CELLS USING VIRAL PROMOTERS	

PRELIMINARY AMENDMENT

Commissioner of Patents and Trademarks
Washington, D.C. 20231
Sir:

This is a preliminary amendment to the file wrapper continuation application being filed simultaneously herewith. This application is a continuation of application serial No. 06/931,492, filed November 17, 1986.

Attached to this preliminary amendment is the Declaration of Dr. Robert B. Horsch. This declaration describes in detail experiments conducted by Dr. Horsch in which he tests the operability and efficiency of the Herpes Simplex virus thymidine kinase promoter to cause expression of the neomycin phosphotransferase type II gene (KAN) in plant cells as purportedly taught in U.S. patent No. 4,536,475 issued to Anderson on August 20, 1985. As a result of his experiments, Dr. Horsch concludes that the mammalian Herpes Simplex virus thymidine kinase promoter is not operable in plants and does not allow for the growth of callus or shoots, in the presence of kanamycin, from leaf discs transformed with a vector containing the KAN gene under the direction of the thymidine kinase promoter. The results of the experiments are pictorially shown in Figures 3 and 4 of Dr. Horsch's declaration and illustrate that plant tissue transformed with a vector containing the thymidine kinase promoter are indistinguishable from negative control plant tissue which has been transformed with a vector that does not contain the KAN gene at all.

The declaration also compares the results of plant tissue transformed with a vector containing a KAN gene under the direction of the thymidine kinase promoter with plant tissue transformed with a vector containing a KAN gene under the direction of the CaMV35S promoter. This comparison gives strikingly unexpected results if it is assumed that the thymidine kinase promoter as described by Anderson would teach one of ordinary skill in the art that the use of any viral promoter would be obvious. As discussed above, the experiments involving the thymidine kinase promoter exhibit levels of growth on kanamycin indistinguishable from the negative controls, whereas the experiments involving the CaMV35S promoter exhibit substantial growth of callus and shoots in the presence of kanamycin. This unexpected property of the plant viral promoter being capable of causing substantial expression of a gene operably linked thereto, especially when compared to a mammalian viral promoter as described in Anderson, is additional evidence that the use of a plant viral promoter such as the CaMV35S and 19S promoters as claimed in the instant application is nonobvious in light of the Anderson patent.

Applicants request that the Patent Office reconsider the arguments made by Applicants in their response dated June 8, 1990 in the application of which this is a continuation and to also reconsider the declarations previously submitted in the preceding case in view of the declaration of Dr. Horsch. It is believed that upon such reconsideration it becomes apparent that this file wrapper continuation is allowable and such action is requested. If the Examiner believes that a telephone conference would be beneficial to the speedy resolution of this case, he is requested to call Applicants's attorney at the number listed below.

Respectfully submitted,

Thomas P. McBride
Attorney for Applicant
Registration No. 32,706

Monsanto Company-BB4F
700 Chesterfield Village Parkway
St. Louis, Missouri 63198
(314)537-7357